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EXAMINER

PALO, FRANCIS T

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/720,919	Applicant(s) AAGAARD, FINN	
	Examiner Francis T. Palo	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/8/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

**Claims 19 and 20 are withdrawn from further consideration** pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention (claim-20) and nonelected species (claim-19), there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on 4/18/07.

Applicant's election with traverse of claims 1-18 in the reply filed on 4/18/07 is acknowledged.

The traversal is on the ground(s) that the process can only be carried out by the claimed device and likewise, the claimed device can only be carried out by the instant process.

This is not found persuasive because the process as claimed in independent claim-20 can be practiced by hand, as required by the showing of distinctness as discussed in the restriction requirement mailed 4/10/07.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-18 remain for examination on the merits, and in the absence of a generic claim, the nonelected claims (19 and 20) are not subject to recapture upon allowance of claim-1.

***Claim Objections***

**Claims 1, 3-11 and 13-18** are objected to because of the following informalities:

While features of an apparatus may be recited either structurally or functionally, **claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone** [See MPEP 2114].

The apparatus claims are replete with intended use and operational recitations, and such language is given consideration only in that the prior art can perform as recited.

**Claim-3** is objected to because of the following informalities:

The claim lacks antecedent basis for "the main delivery assembly".

Appropriate correction is required.

**Claim-4** is objected to because of the following informalities:

"the water" should be changed to --water from the plant tray--.

Appropriate correction is required.

**Claim-5** is objected to because of the following informalities:

The claim lacks antecedent basis for "main delivery ascending pipe".

Appropriate correction is required.

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**Claim-6** is objected to because of the following informalities:

The claim lacks antecedent basis for "the main delivery pipe" and "the tray delivery assembly". Appropriate correction is required.

**Claims 7 and 8** are objected to because of the following informalities:

The claims lack antecedent basis for "the tray delivery assembly".

Appropriate correction is required.

**Claim-9** is objected to because of the following informalities:

The claim lacks antecedent basis for "the main drain assembly".

Appropriate correction is required.

**Claim-11** is objected to because of the following informalities:

The claim lacks antecedent basis for "the tray drain pipe" and "the main drain pipe" and "the tray drain assembly". Appropriate correction is required.

**Claim-12** is objected to because of the following informalities:

The claim lacks antecedent basis for "the main drain line".

Appropriate correction is required.

### ***Specification***

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors; for example, on page-7 at lines 18 and 19 thereabout, the label (168) has been applied to both "positive pressure ball valve" and to "vacuum shut off valve".

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-18** are rejected under 35 U.S.C. 103(a),

as being unpatentable over **Midwest Gromaster, Inc.** ([www.midgro.com](http://www.midgro.com)) 2002,

in view of **McLellan** (US 1,939,015) 1933 and **Wittbold** (US 762,014) 1904 .

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Regarding **claim-1 (a-d)**:

Midwest Gromaster, Inc., in combination with the '014 and '015 patents is relied upon for the well-known teaching of the instant invention as broadly claimed.

Specifically, **McLellan '015** is relied upon for the obviousness of crop production wherein irrigation is provided by an "overhead pipe system" (10) while also teaching heating being provided by floor piping.

**Wittbold '014** is relied upon for the obviousness of overhead piping and delivery as well as bench irrigation (see the various embodiments of nozzle (d2) placement, especially figure-6).

**Midwest Gromaster, Inc.** is relied upon for the obviousness of "remotely placed water storage tanks connected to at least one plant tray" (EBB-FLO benches; as the benches are readable functionally as trays for holding fluid and plants thereon or therein), as recited in (1a) of the instant claim (see the sheet labeled "plumbing for EBB-FLO" and the sheet labeled "tanks").

It is submitted that it would have been obvious to one of ordinary skill in the art to have provided an "overhead pipe system" as claimed in (1a) of the instant claim, to the system of **Midwest Growmaster**, so as to free up critical floor space such as taught by **McLellan** or for the flexibility as taught by **Wittbold**, as recited in (1a) of the claim.

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Midwest Growmaster further teaches the use of the "QUICK VALVE" (see sheet labeled "quick valve") as the fill/drain valve for their connections to the benches (trays as claimed); therefore, Midwest Growmaster as modified teaches the obviousness of an overhead pipe system having a delivery pipe to deliver and remove water from the plant tray(s) as recited in (1b), (again, see at least Wittbold).

The nursery irrigation system of Midwest Growmaster is capable of being "easily disassembled and reconfigured" as claimed in (1c), as the term "easily" is a broad and subjective operational limitation.

Finally, while Midwest Growmaster appears to be silent as to a "controller" for unattended system operation (at least in the pages submitted for applicant's consideration) as claimed, the examiner takes official notice that controllers are well known in operations such as Midwest Growmaster.

**Regarding claims 2 and 3:**

The discussion above regarding claim-1 is relied upon.

The assembly as recited in claim-2 and the intended use statement recited in claim-3 is readily apparent from the depiction of Midwest Growmaster in the sheet labeled "plumbing for EBB-FLO", and while Midwest Growmaster does not specifically recite a centrifugal pump as claimed, the examiner takes official notice that such pumps are well known in the art.



Regarding **claim-4**:

The discussion above regarding claim-3 is relied upon.

As discussed above in claim-1, Midwest Growmaster further teaches the use of the "QUICK VALVE" (see sheet labeled "quick valve") as the fill/drain valve for their connections to the benches (trays as claimed), (see the table valve in the depiction of the sheet labeled "plumbing for EBB-FLO").

Regarding **claim-5**:

The discussion above regarding claim-4 is relied upon.

Depicted in the sheet labeled "plumbing for EBB-FLO") is a return valve (check valve as claimed) for preventing backflow as recited; Midwest Growmaster as modified thus relies upon such a valve as recited.

Regarding **claim-6**:

The discussion above regarding claim-5 is relied upon.

Depicted in the sheet labeled "plumbing for EBB-FLO") are "T" lines, as claimed.

Regarding **claims 7 and 8**:

The discussion above regarding claim-6 is relied upon.

Solenoid valves are depicted in the sheet labeled "plumbing for EBB-FLO" capable of the intended and functional recitations claimed.

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Regarding **claims 9 and 10**:

The discussion above regarding claim-8 is relied upon.

As previously discussed, Midwest Growmaster teaches the use of the "QUICK VALVE" which operates on the venture principle, which is capable of the operational and functional language recited in the instant claims (see the sheets labeled "plumbing for EBB-FLO" and "quick valve").

Regarding **claim-11**:

The discussion above regarding claim-10 is relied upon.

As discussed above in claim-5 Midwest Growmaster teaches the use of the check valve, and relocation or use in general would require only ordinary skill in the art, for the well-known advantages of that feature.

Regarding **claim-12**:

The discussion above regarding claim-11 is relied upon.

Midwest Growmaster depicts a "poly pipe" readable as the input line as claimed.

Regarding **claims 13 and 14**:

The discussion above regarding claim-12 is relied upon.

The obviousness of a controller has been discussed above in claim-1, again the examiner takes official notice that the use of a controller as claimed is well known in the art as claimed.

Regarding **claims 15-18**:

The discussion above regarding claim-14 is relied upon.

The assemblies as claimed are apparent and readable on the depictions in the sheet labeled "plumbing for EBB-FLO", as claimed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis T. Palo whose telephone number is 571-272-6907. The examiner can normally be reached on M-Tu.,Th.-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Francis T. Palo*

Francis T. Palo  
Primary Examiner  
Art Unit 3644